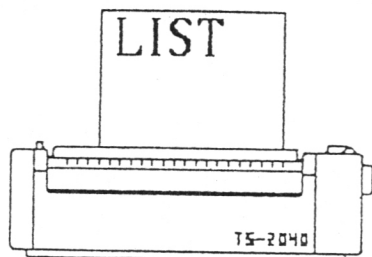


L.I.S.T.ing Newsletter

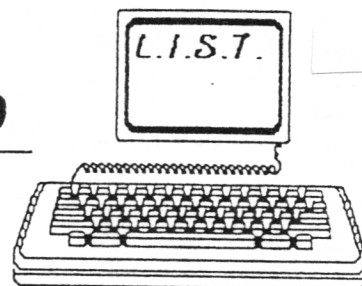
The newsletter of the Long Island Sinclair Timex group.

*** Incorporating NYTSE ***



Issue: May
MONTH

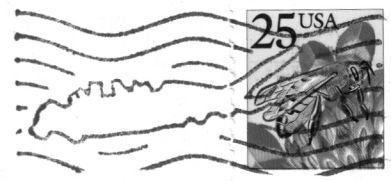
1989
YEAR



IN THIS ISSUE TIPS TIPS TIPS PRODUCT INFO

L.I.S.T. membership for one year is \$15.00. Library tapes are available. Write to the below address for further information.

L.I.S.T.
5 Peri Lane
Valley Stream, NY 11581



TO:

Don Lambert JAN/90
3310 Clover Dr. S
Cedar Rapids, IA
52404

FIRST CLASS MAIL
DATED MEETING NOTICE
Please DON'T delay!!!

P.1

LIST OFFICERS

PRES. HARVEY RAIT
TRES. ROBERT MOLLOY
REC. SEC. STEVE KAYE
EDITOR. FRED STERN
LIBR. TOM SKAPINSKI

PLEASE SEND INQUIRIES TO:

LIST
MR. HARVEY RAIT
5 PERI LANE
VALLEY STREAM, N.Y. 11581

PLEASE SEND SUBMISSIONS TO:

LIST
MR. FRED STERN
214 ROBERT ST.
HOLBROOK, N.Y. 11741

COMING EVENTS:

JUNE 11, 1989 LIST MEETING AND
SWAPMEET
JUNE 12, 1989 NYTSE MEETING

MEETING MINUTES
MAY 21, 1989

THE MEETING WAS CALLED TO ORDER
AT 2:15 BY HARVEY

THE AERCO INTERFACE DISC DRIVES
AND POWER SUPPLY WERE SOLD TO
EDGAR GROSS.

LIST TAPES 1 AND 2 (TS1000
PROGRAMS) TO BE RE-RELEASED AFTER
THE SUMMER. LIST TAPE TS1000.3
WILL ALSO BE AVAILABLE.
LIST TO PUBLISH
TS1000 TECHNICAL TIDBITS,
AVAILABLE AFTER THE SUMMER.
TS1000 USERS CAN RESERVE COPIES
OF THE ABOVE BY SENDING A POST
CARD TO THE LISTING EDITOR.
THE COST OF THE ABOVE ITEMS HAS
NOT BEEN DETERMINED AS YET, BUT
AS WITH ALL OTHER LIST ITEMS
WILL BE KEPT AS LOW AS POSSIBLE.

TRENTON FEST HIGHLIGHTS

THE TRENTON FEST WAS WELL WORTH
THE TRIP FROM LONG ISLAND.
THE OUT DOOR FLEA MARKET WAS OF
MOST INTEREST TO THE TIMEX
SINCLAIR USER. SOME OF THE
BARGAINS FOUND WERE,
TS1000 AND TS2058 S/W 3/\$5.00
1.4 AMP. TS1000 P/S \$2.00
64K MEMOPAK \$25.00
DISC DRIVES STARTED AT \$10.00
THE INDOOR MARKET WAS GEARED TO
IBM AND CLONES. THIS REPORTER
DID NOT ATTEND ANY OF THE
LECTURES.



CATS FEST HIGHLIGHTS

THE CATS FEST WAS REPORTED TO
BE ANOTHER TERRIFIC EVENT.
OUR LIST GROUP WAS WELL
REPRESENTED.
SOME VENDORS WHO NOTED:
ZEBRA WAS SELLING PERIPHERAL IN
AS-IS CONDITION AT ROCKBOTTOM
PRICES.
SHARP WAS SELLING QL FOR \$89.00.
A4 SELLING LAST OF ITS INVENTORY
MIKE FINK SELLING 288.
TIME DESIGNS WAS HANDING OUT
COMPLIMENTARY ISSUES, AND
PROMISING IMPROVED DELIVERY.

OTHER BUSINESS

HARVEY ADVISED THAT LIST WILL
JOIN SNUG AND PURCHASE SOFTWARE
FOR THE GROUP.

FINAL NOTES

HARVEY GAVE THE GROUP A SEMINAR
ABOUT AUCTIONS. WE WERE TOLD OF
THE DIFFERENT TYPES OF AUCTIONS
AND WHICH IS THE BEST ONE TO
ATTEND TO PURCHASE COMPUTER
EQUIPMENT.
THIS IS GOOD INFORMATION WHICH
YOU MISS WHEN YOU DON T ATTEND
LIST MEETINGS.

THE QL MICROCASSETTES ARE IN.
THEY ARE SOLD AS A PACKAGE OF
FOUR (4) IN A WALLET STYLE
HOLDER FOR \$10.00. SEE HARVEY
BEFORE OR AFTER THE MEETING.
THESE MICROCASSETTES COME WITH
THE FOLLOWING PROGRAMS;
DATABASE
SPREADSHEET
WORDPROCESSOR
BUSINESS GRAPHICS
BETTER GET THEM WHILE THEY ARE
AVAILABLE.

A FINAL WORD

MY NAME IS FRED STERN, AND I AM
THE EDITOR OF THIS EDITON OF
LISTING.
GEORGE GILDER (BOB'S BROTHER)
CONTRIBUTED NUMEROUS TIDBITS
AND PROGRAMS FOR THIS ISSUE.
THANKS GEORGE.
ALSO READ ABOUT THE SPECTRUM
CLONE MADE IN BRAZIL.
DURING THIS MEETING, MYLES
BROUGHT UP THE POINT THAT
NOTHING IS PUBLISHED IN LISTING
ABOUT THE NYTSE MEETINGS.
THE REASON IS WE DO NOT HAVE A
NYTSE REPORTER.
TO RESOLVE THE PROBLEM, I AM
NOW ASKING FOR A VOLUNTEER WHO
ATTENDES THE NYTSE MEETINGS TO
BE A REPORTER FOR LISTING.
ANYONE INTERESTED CAN CONTACT
ME AFTER 5:00PM 516-737-0963.
FINALLY, PLEASE COMPLETE THE
ENCLOSED QUESTIONNAIRE AND SEND
IT BACK TO US.
THE RESULTS OF THE SURVEY WILL;
1) TELL US WHAT HARDWARE AND SOF
TWARE YOU USE.
2) TELL US HOW YOU FEEL LIST AND
LISTING CAN BE IMPROVED.
THE RESULTS OF THE SURVEY WILL
BE PRESENTED AT THE SEPTEMBER
LIST MEETING.

List Questionair

Please take a few minutes to complete this survey
and return it to L.I.S.T.

Its results will be used to better serve you.

Name:

Address:

City:

State:

Zip:

| Please Name Hardware | Primarily Used | Secondary |
|----------------------|----------------|-----------|
| Computer: | | |
| Ram Pack: | | |
| Printer: | | |
| Modem: | | |
| Other Accessories | | |
| " " | | |

| Please Name Software | Primarily Used | Secondary |
|-----------------------|----------------|-----------|
| Business/Professional | | |
| Utility | | |
| Communication | | |
| Game | | |
| Other | | |
| Other | | |

Speak Your Piece:

Tell us how you feel that LIST and Listing
can be improved. ✓

A MOST FEROCIOUS PROBLEM SOLVED! by George Gilder

On October 12, 1988 the New York Times, printed an article on page 1 titled "World's Fiercest Math Problem,-Solved".

Let me state at the outset that I am not a mathematician. As I recall, university math was always a mystery to me. BUT what always amazes me is the power in our small machines. I am still in awe of the potentials in our low cost marvels.

The problem was to find two factors, (numbers) that when multiplied together equals the answer. For example the factors for 15 are 3 and 5. Ideally, the number should have only one solution in addition to being able to be divisible by 1. The number (100 digits long), was the first ever of that length to be solved. As you can see in the article the problem was solved using the output of hundreds of main frame computers.

Although we cannot feed numbers that large into our computers, we can however approximate the problem. I have created a very short program that will give the answer to any integer (a whole number). The program works best with any number 8 digits long. The answers should not be square roots of that number.

I have provided a typical screen dump using several sized numbers. As an added feature you can enter "c" at the prompt to see other answers. The last number shows four different valid numbers using this feature. If you remove the REM token from line 65 you can see how the computer arrives at its answers. This program can be entered and run on any computer.

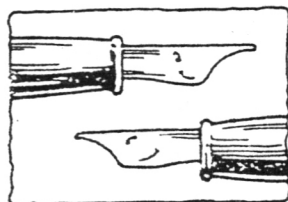
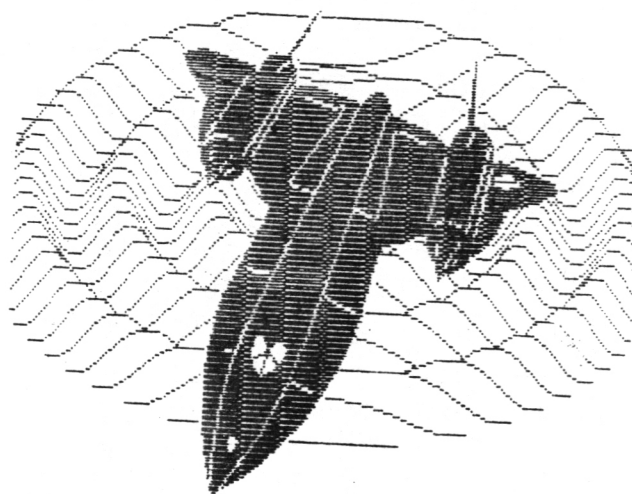
Although the original problem listed in the Times has only one answer, our program is amazing in the rapid fashion it solves its problems. It's fun to watch too!

George Gilder October 1988

```

10 REM *****
10 REM * PRIME NUMBERS *
10 REM * ©1988 G. Gilder *
20 REM *****
40 CLS
50 INPUT "Input number " "ente
r 0 to stop "a: PRINT a
55 IF a=0 THEN STOP
60 LET b=INT (a/4): LET c=b
65 LET n=b*c: IF n>a THEN LET
b=(INT (b-1)): REM PRINT b;"X";
c)="",b*c
67 IF n>a+a THEN GO SUB 300
70 IF n<a THEN LET c=INT (c+1)
75 IF a/b<=b THEN LET c=c-1
80 IF c=0 THEN GO TO 60
90 IF b*c=a THEN GO TO 900
100 GO TO 65
300 LET b=b/1.5: LET c=c/1.5: R
ETURN
900 PRINT INK 2;b;"X";c);"=";b*c
": INK 0: GO TO 60
8888 STOP
9000 CLEAR : SAVE "prime1" LINE
1

```



```

1234
2X617=1234

123456
192X643=123456

12345678
846X14593=12345678

6.7059274E+8
18107X37035=6.7059274E+8

15637X42885=6.7059274E+8
14295X46911=6.7059274E+8
12345X54321=6.7059274E+8

```

SCREEN DUMP

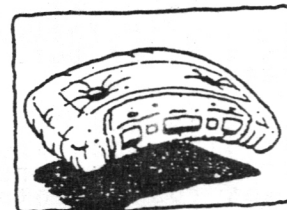
MScript V CHANGES FOR PORT. DISC DRIVE
George Gilder September 1988

I use my system for my design business and find that each disk builds up multiple screens of data. In order to keep everthing orderly, I use the DIR feature (see instruction book) and build multiple directories. I find this to be an overlooked feature in an excellent system.

Mscript V does not properly address the need to go into each directory (dir), catologue (cat) each directory, or load dir program data. The changes are simple:

```
121 INPUT "DIR TYPE: ";T$:IF T
$="" THEN CLS : CAT *: GOTO VAL
"129"
122 CLS : GOTO *T$: CAT *: GO
TO VAL "129"

371 INPUT ( INVERSE a; k$; INVER
se z;" NAME: ")
```



Use the prompts as before. Let us assume our disk name is :MS and one of our files are list.dir. To cat the list.dir press the c prompt. When the type prompt is seen, enter list.dir and the directory is listed. To go back to the main menu enter:MS.

To load a program from the list.dir., enter list dir: name of program. By eliminating the rest of line 371 you can enter multiple levels and load the programs without going into the dirs.

If you make these changes, it is good practice make a backup on another disk to save a copy of your regular program.

© 1988 George Gilder

By using a combination of PAPER, INK and UDG screens we can have an almost endless variety of colors.

Most color printing we see in magazines, packages etc., are printed using only four colors; cyan, yellow, magenta and black. These are called process colors.

The seemingly endless varieties are determined by a combination of screened and solid colors. The screens are percentages of the 4 process colors. The following programs use similar but simplified features.

The first listing (C1) is from a Res-istor Color Code program I have developed. The screen dump shows the custom colors. Below are the UDG's developed for this and the following program.

Note that lines 407 to 411 use the combinations I noted above.

Color Blocks uses the same UDG's as the prior program. An endless chain of colors, hues and their shades can be seen. By changing or adding your own screens the range increases greatly.

Custom Colors C2 shows a more spectacular series in bar form.

I can answer questions with SAE.
George Gilder 57-38 108 Street,
Forest Hills, NY 11375

RESISTOR COLOR CODE CHART
Enter color bars on resistor

```
BLACK = 0
BROWN = N
RED    = R
ORANGE = O
YELLOW = Y
GREEN  = G
BLUE   = B
VIOLET = V
GRAY   = E
WHITE  = U
```

GOLD =L
SILVER=S

DG       

[illegible]

```

500 REM ** COLOR BLOCKS**
505 LET a=5: FOR p=157 TO 160:
FOR i=0 TO 6
510 LET k=INT (RND*7): PRINT AT
a,i*2+6; PAPER k; INK i;CHR$ p;
CHR$ p
515 NEXT i: LET a=a+1: NEXT p
550 PRINT AT 20,6;"PRESS ANY KE
Y";TAB 7;"TO CONTINUE": PAUSE 0
: GO TO 500
590 REM

```

```

600 REM *****
    * Custom Colors C2 *
    *****
605 REM Try this program & see
    dozens of color bars using
    only one screen and the
    standard 2068 colors. NOTE
    Type and run these
    programs together.
610 LET b$="
"
620 FOR i=0 TO 7: FOR f=0 TO 6:
PRINT PAPER f; INK i; b$
630 NEXT f: NEXT i
9000 CLEAR : SAVE "color" LINE

```

```

9 REM *****
10 REM MOST COMPUTERS USE THE
    ENG FUNCTION TO MAKE
    READING LARGE NUMBERS
    EASIER.
11 REM THIS PROGRAM REVERSES
    THIS STEP. YOU'LL SEE
    WHY THE "E" FUNCTION
    WAS DESIGNED!
12 REM © 1987 GEORGE GILDER
13 REM LINE NUMBERS 50-70
    GENERATE THE NUMBERS,
    THE SUBROUTINE AT 100
    DOES THE WORK.
20 REM *****
50 LET a=123
60 FOR f=1 TO 15
70 LET b=a+f: LET b$=STR$ b: G
0 SUB 100
75 PRINT b$
80 NEXT f
90 STOP
100 FOR x=1 TO LEN b$
110 IF b$(x)="E" THEN GO TO 140
120 NEXT x: RETURN
140 LET s=VAL b$(1 TO x-1)
150 LET z=VAL b$(x+1 TO )
170 FOR x=1 TO LEN b$
180 IF b$(x)=", " THEN GO TO 200
190 NEXT x: RETURN
200 LET R$=STR$ s: LET l=LEN R$
(x+1 TO ): LET t$=R$(x-1)+R$(x+1
TO )
210 LET s$="": LET v=z-l
220 FOR x=1 TO v: LET s$=s$+"0"
: NEXT x
230 LET b$=t$+s$: RETURN
9000 CLEAR : SAVE *"Eng-E"

```

```

123
15123
1860867
228886640
28153057000
34628260000000
425927500000000
52389094000000000
644385870000000000
7925946100000000000
97489138000000000000
1199118400000000000000
147491320000000000000000
18141432000000000000000000
2231395100000000000000000000

```

screen dump

```

1 REM This program lists the
    best combination of two 5%
    resistors to obtain a one
    percent value.
2 REM The program then evalua
tes the percentage of accuracy;
    usually within the one% ran
ge.
10 REM 1 % parallel resistors
    using 5 % E-24 resistors
20 REM 02/88 Audio Amateur For
    TS 2068 by G. Gilder 5/88
30 DIM r(95): DIM m(7)
40 FOR x=1 TO 24
50 READ r(x)
60 LET r(x+24)=r(x)*10
70 LET r(x+48)=r(x)*100
80 LET r(x+72)=r(x)*1000
90 NEXT x
100 LET m(1)=1: LET m(2)=10: LE
T m(3)=100: LET m(4)=1000: LET m
(5)=10000
110 LET m(6)=100000: LET m(7)=1
000000
120 PRINT "E-24, 5% Resistor val
ues for " "Parallel resistors" " I
NK 1:"
130 LET r1=0: LET r2=0: LET rfi
nal=0
140 INPUT "Desired resistance="
: rfinal
145 IF rfinal=0 THEN STOP
150 LET sf=LEN (STR$ (rfinal))-
1
160 LET rf=rfinal/m(sf)
170 LET yout=rf*920
180 LET cutoff=rf*2
190 LET start=INT (LN (rf)*10.4
2307+1)
200 FOR x=start TO 95
210 FOR y=start TO 95
230 IF r(x)>cutoff AND r(y)>cut
off THEN GO TO 330
240 LET rtemp=(r(y)*r(x))/(r(y)
+r(x))
250 IF rf/rtemp>1.005 OR rf/rte
mp<.995 THEN GO TO 310
270 LET hold=rtemp
280 LET r1=r(x): LET r2=r(y)
290 PRINT INK 2; AT 4,0;"COMPUTI
NG": PAUSE 10: PRINT AT 4,0;"
300 IF hold=rf THEN GO TO 330
305 IF r(y)>yout THEN GO TO 320
310 NEXT y
320 NEXT x
330 LET r1=r1*m(sf): LET r2=r2*
m(sf)
340 PRINT "For "; rfinal;" ohm
s": " R1="; r1: " R2="; r2
350 LET er=hold/rf
360 IF er>=1 THEN LET er=er-1:
GO TO 380
370 IF er<1 THEN LET er=1-er
380 PRINT "ERROR ="; 100*er;" %"
390 GO TO 130
410 REM Standard 5% E-24 values
420 DATA 1.0,1.1,1.2,1.3,1.5,1.
6,1.8,2.0,2.2,2.4
430 DATA 2.7,3.0,3.3,3.6,3.9,4.
3,4.7,5.1,5.6,6.2
440 DATA 6.8,7.5,8.2,9.1
500 STOP
9000 CLEAR : SAVE *"par-res" LIN
E 1: CAT #

```

MICRODIGITAL ELETRONICA LTDA
RUA DO ROSQUE 1234 - BARRA FUNDA TEL - (011) 825.4066
CEP 01136 - SAO PAULO - SP

CARTA 1490

Sao Paulo, 10 de Março de 1989.

FREDERIC STERNS

PRODUCT INFO.

Ref: Tecnic Information

Frederic,

About your letter of 15 January, we're sending the catalogs of TK 90X and TK 85.

Actually we're manufacturing only TK 90X and TK 95.

Our equipments are available for sale only at Brazil, Uruguay and Chile.

Should you have other question please contact us.

Regards.

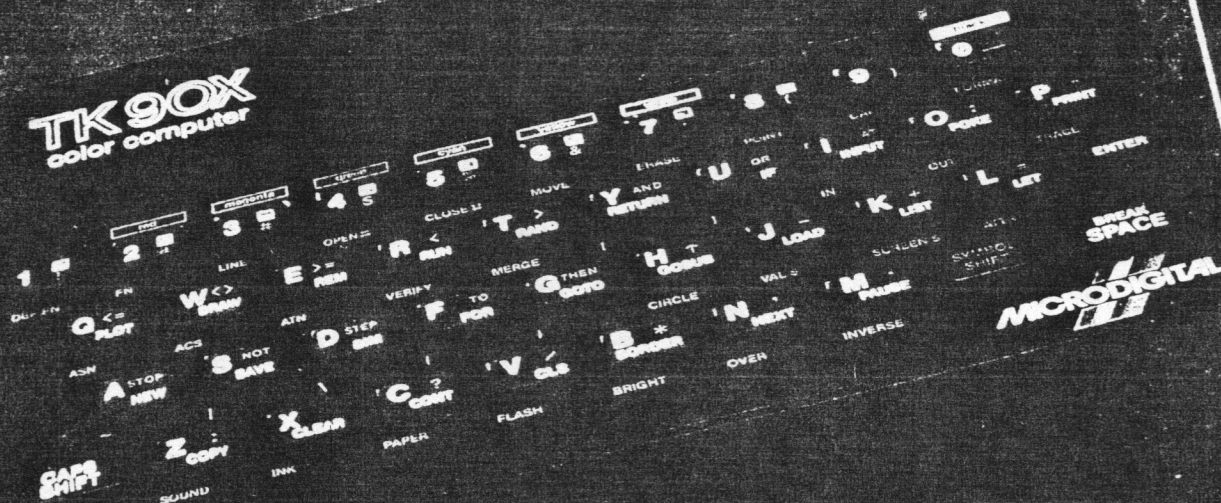


L.I.S.T.

*Microdigitals answer to my request
for information about their Spectrum
Compatible Machine.*

F.L.

TK 90X
color computer





A home computer with thousands of programs.

Due to its compatibility with Sinclair's **ZX SPECTRUM®**, the TK 90X is one of the few home computers in the world which deserves the classification of "Software Machine", with more than 5000 programs available all over the world.

Main Features:

High graphic resolution, 8 colors (with two shades each), fast and easy loading of programs, sound through TV set, capital and small letters, character generator function enabling users to design special characters, instruction "trace" for debugging, built-in interface for joystick.

Technical Characteristics

| | | | | | | | | | |
|------------------------|--|-----------|-----------|----------|----------|---------|------------|-------------|-----------|
| PROCESSING UNIT: | Microprocessor Z80A (8 bits) 3.58 MHz | | | | | | | | |
| MEMORY | 16 Kbytes ROM 48 Kbytes RAM | | | | | | | | |
| BASIC SOFTWARE | Powerful basic interpreter contained in ROM, besides monitor, tape recorder and peripheral control | | | | | | | | |
| MACHINE LANGUAGE | Programmable in Machine Language through functions: PEEK, POKE, USR, SAVE, CODE, LOAD CODE, VERIFY CODE, IN, OUT, BIN | | | | | | | | |
| SOFTWARE | Wide range of Application Programs available all over the world | | | | | | | | |
| KEYBOARD (QWERTY type) | <ul style="list-style-type: none"> • Auto repeat • Sound identification of key acceptance (key-click) • 40 Keys • 93 Mathematical, logical and scientific functions • 63 Alphanumeric characters including numbers, capital and small letters • 16 Graphic characters • 21 User designed graphic characters with built-in Editor | | | | | | | | |
| VIDEO OUTPUT | <ul style="list-style-type: none"> • Color or black & white TV set (PAL or NTSC System, on low VHF channels) • Modulated sound through TV set • Working in INVERTED FORM controlled by software • Text display: 24 lines with 32 characters • Graphic display: Resolution of 256 x 192 graphic elements • HIGH RESOLUTION and TEXT MODE in 8 colors with 2 shades which can be combined in any form • FLASHING and BRIGHTNESS resources • Independent control of colors (INK & PAPER) per character • Independent control of border color (BORDER) • Possibility of superposition of characters (OVER) | | | | | | | | |
| TAPE UNIT | <ul style="list-style-type: none"> • Programs and data can be stored on common cassette tapes using a conventional recorder • Recording and Speed: 1200 Bauds • Allows recording/reading and checking BASIC programs, memory blocks, video screen, numeric/alphanumeric arrays • Allows integration of two or more BASIC programs through MERGE command | | | | | | | | |
| PERIPHERALS (Optional) | <ul style="list-style-type: none"> • Interface RS 232 for data communication • Mother Board • Parallel Printer Interface • Joystick • EPROM Programmer • Light Pen <p>Peripherals available in the world market: Digital Tracer, Wafa Drive, Micro-Drive, Speech-Card, Printers, Modem, D/A Board, Interface for Floppy Disk Drive 3", 3 1/4" or 5 1/4", Memory Expansion to 128K, Sound Generator, Cartridges, etc.</p> | | | | | | | | |
| ACCESSORIES | <p>(Supplied with TK 90X)</p> <ul style="list-style-type: none"> 1 - Coaxial cable for connection to TV set, 300 Ohms (75 Ohms optionally) 1 - Power supply with ON/OFF key, 110/220 V, 50 or 60 Hz 1 - Cassette tape (Introduction to TK 90X) 1 - Cable for reading/recording 1 - Operational manual | | | | | | | | |
| COLORS | <table> <tr> <td>0 - Black</td><td>4 - Green</td></tr> <tr> <td>1 - Blue</td><td>5 - Cyan</td></tr> <tr> <td>2 - Red</td><td>6 - Yellow</td></tr> <tr> <td>3 - Magenta</td><td>7 - White</td></tr> </table> | 0 - Black | 4 - Green | 1 - Blue | 5 - Cyan | 2 - Red | 6 - Yellow | 3 - Magenta | 7 - White |
| 0 - Black | 4 - Green | | | | | | | | |
| 1 - Blue | 5 - Cyan | | | | | | | | |
| 2 - Red | 6 - Yellow | | | | | | | | |
| 3 - Magenta | 7 - White | | | | | | | | |
| SOUND | <ul style="list-style-type: none"> • Sound synthesizer controlled by software • Sound outlet generation through TV set allowing volume control • BASIC command allowing reproduction of 10 octaves (130 half notes) | | | | | | | | |
| JOYSTICK | <ul style="list-style-type: none"> • Built-in interface for joystick, compatible with Atari, operating by keys 6, 7, 8, 9 and 0 | | | | | | | | |
| OPERATIONS | <ul style="list-style-type: none"> • TK 90X is connected to a TV set aerial inlet by a coaxial cable. By entering data through keyboard, different commands or instructions in BASIC language are introduced and can be executed at any time, or stored on a tape by SAVE command. LOAD command is used to load programs and data from tape | | | | | | | | |
| APPLICATIONS | <ul style="list-style-type: none"> • Training programming • Mathematical calculations • Educational programs • Graphics • Statistics • Financial programs • Intelligent games • Animation games • Sound generation • Programming in Z80A machine language • Control of stocks, Business records | | | | | | | | |

(Features subject to change without prior notice)

ZX SPECTRUM is a registered trademark of SINCLAIR Research Ltd.